MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ___
no X

Property Name: SHA Bridge No. 0336500 Inventory Number: BA-2713

Address: MD 157 over Bear Creek Historic district: ___ yes X no

City: Dundalk, MD Zip Code: ___ County: Baltimore County

USGS Quadrangle(s): Middle River

Property Owner: MD State Highway Administration Tax Account ID Number: ___

Tax Map Parcel Number(s): ___ Tax Map Number: ___

Project: Mid-20th Century Highway Bridges of Maryland (1948-1960) Agency: MD SHA

Agency Prepared By: ___

Preparer's Name: Amy Barnes URS Corporation Date Prepared: 10/15/2004

Documentation is presented in: Project Review and Compliance files

Preparer's Eligibility Recommendation: ___ Eligibility recommended X Eligibility not recommended

Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G

Complete if the property is a contributing or non-contributing resource to a NR district/property:

Name of the District/Property: ___

Inventory Number: ___ Eligible: ___ yes Listed: ___ yes

Site visit by MHT Staff ___ yes X no Name: ___ Date: ___

Description of Property and Justification: *(Please attach map and photo)*

SHA Bridge No. 0336500 was determined to be not eligible for the National Register of Historic Places on December 3, 1998. No new information has been provided to change that determination.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ___ **Eligibility not recommended** ___

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments: DETERMINED NOT ELIGIBLE IN 1998.

Reviewer, Office of Preservation Services **Date**

Reviewer, National Register Program **Date**

201002772

Maryland Historical Trust

Inventory No. BA-2713

Maryland Inventory of Historic Properties Form

1. Name of Property (indicate preferred name)

historic	MD 157 Bridge over Bear Creek
other	Bridge No. 0336500

2. Location

street and number	MD 157 at Bear Creek	N/A	not for publication
city, town	Dundalk	X	vicinity
county	Baltimore County		

3. Owner of Property (give names and mailing addresses of all owners)

name	Maryland State Highway Administration				
street and number	707 N. Calvert Street			telephone	410-545-0300
city, town	Baltimore	state	MD	zip code	21202

4. Location of Legal Description

courthouse, registry of deeds, etc.			liber	folio
city, town	tax map	tax parcel		tax ID number

5. Primary Location of Additional Data

_____ Contributing Resource in National Register District
_____ Contributing Resource in Local Historic District
_____ Determined Eligible for the National Register/Maryland Register
_____ Determined Ineligible for the National Register/Maryland Register
_____ Recorded by HABS/HAER
_____ Historic Structure Report or Research Report at MHT
__x__ Other: Statewide Inventory by SHA

6. Classification

Category
_____district
_____building(s)
__x__structure
_____site
_____object

Ownership
__x__public
_____private
_____both

Current Function

_____agriculture	_____landscape
_____commerce/trade	_____recreation/culture
_____defense	_____religion
_____domestic	_____social
_____education	__x__transportation
_____funerary	_____work in progress
_____government	_____unknown
_____health care	_____vacant/not in use
_____industry	_____other:

Resource Count

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
_____	__1__	structures
_____	_____	objects
_____	__1__	Total

Number of Contributing Resources previously listed in the Inventory
__0__

7. Description

Inventory No. BA-2713

Condition

___ excellent ___ deteriorated
x good ___ ruins
___ fair ___ altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

The MD 157 Bridge over Bear Creek, also known as the Cort Memorial Bridge, (MIHP # BA-2713, Bridge 0336500) is a double-leaf trunnion-type bascule span bridge, built in 1960 and rehabilitated in 1999, that carries MD 157 (the Peninsula Expressway) over Bear Creek. The bridge is located in an urban area and connects Dundalk to Sparrows Point. Marinas are located to the north and south of the bridge. A swing span railroad bridge, known as the Patapasco Neck Branch Railroad Bridge, is located to the north of the bridge.

The bridge runs northwest-southeast and carries four lanes of vehicular traffic, two in each direction. A sidewalk carries pedestrian traffic on the north side of the bridge. The sidewalk is composed of concrete on the approach spans and metal plates on the bascule span. The bridge spans Bear Creek with a vertical clearance of almost 25 feet in the boat channel. The width of this channel is 63.5 feet. The bridge is composed of 16 spans and measures almost 1,348 feet in length between bearings at the abutments. The overall width of the structure is nearly 50 feet with four-foot sidewalks. Modern light standards and concrete parapets line each side of the bridge.

The substructure is composed of nine visible piers east of the bascule span. Six visible piers are located west of the bascule span. Each pier is comprised of four concrete columns. However, the third and sixth piers west of the east shore have paired columns. The third pier west of the bascule span also has paired columns. Reinforced concrete piers with pile foundations and timber fenders support the bascule span. The approach spans of the bridge have prestressed concrete girders. The spans flanking the bascule span have seven new steel interior rolled beams and the original riveted steel plate girders at each fascia. The bascule span is a double-leaf trunnion. It consists of riveted built-up steel plate fascia bascule girders with a steel rolled beam stringer and floorbeam system.

The two story control house for the bridge is located on the northwest pier of the bascule span. It is composed of pre-cast concrete panels. The original aluminum sash windows have been replaced with vinyl sash. The control house contains two rooms: a radio operator's room on the first level and a bridge operator's room on the second level.

The approach spans of the bridge have a reinforced concrete deck. The bascule span has an open steel grid deck. A concrete parapet with a two-bar guardrail is located on the approach spans. The bascule span has a metal railing topped with a two-bar guardrail. In 1999, the bridge underwent major work that included the replacement of the approach spans and a rehabilitation of the bascule and flanking spans. The work included the complete replacement of the substructure and superstructure of the approach spans. Consequently, the bridge has a modern appearance and lacks mid-twentieth century elements. The bridge lacks a dedication plaque, but the date "1999" is inscribed in the concrete parapet at the northeast corner of the bridge.

Traffic lights are located at each end of the bascule span. Two automatic traffic arms are located at each stoplight. The control boxes for the arms say "Protect-o-arm" and "B & B Electromatic Norwood LA." Other major pieces of machinery that operate the two leafs include the main pinion bearing, rack and pinion, trunnion, speed reducers, and nose locks.

8. Significance

Inventory No. BA-2713

Period	Areas of Significance	Check and justify below		
__ 1600-1699	__ agriculture	__ economics	__ health/medicine	__ performing arts
__ 1700-1799	__ archeology	__ education	__ industry	__ philosophy
__ 1800-1899	__ architecture	x engineering	__ invention	__ politics/government
x 1900-1999	__ art	__ entertainment/ recreation	__ landscape architecture	__ religion
__ 2000-	__ commerce		__ law	__ science
	__ communications	__ ethnic heritage	__ literature	__ social history
	__ community planning	__ exploration/ settlement	__ maritime history	x transportation
	__ conservation		__ military	__ other: ____

Specific dates	1960; 1999- rehabilitation	**Architect/Builder**	Willson T. Ballard Company
Construction dates	1960		

Evaluation for:

__x__ National Register _____Maryland Register _____not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, followed by a narrative discussion of the history of the resource and its context. (For compliance projects, complete evaluation on a DOE Form – see manual.)

Statement of Significance

The MD 157 Bridge over Bear Creek, also known as the Cort Memorial Bridge, (MIHP # BA-2713, Bridge 0336500) was constructed in 1960, east of the communities of Dundalk and Inverness, in Baltimore County. The bridge was constructed as a part of the development of the Peninsula Expressway which connects the Dundalk area and Southeast Baltimore with I-695, the Baltimore Beltway. The MD 157 Bridge over Bear Creek is a sixteen span movable double leaf bascule bridge running northwest to southeast across Bear Creek. This bridge is one of three examples of this type constructed in Maryland from 1948 to 1960 and one of two examples of its type constructed in Baltimore County. The bridge was significantly altered in 1999.

Historic Background and Support

The North Point peninsula is located to the east of the city of Baltimore and is surrounded by three bodies of water: the Back River to the north, the Chesapeake Bay to the east, and the Patapsco River to the south. The area was sparsely populated with farms until the end of the 19th century when industry came to the area. The first company to establish itself on the peninsula was the Maryland Steel Company, which built a shipyard and steel mill at Sparrow's Point, on the eastern side of Bear Creek in 1889. Housing was built near the shipyard to accommodate workers, as the commute from Baltimore was too difficult for most employees due to the lack of an existing transportation system[1]

Henry McShane, the owner and founder of the McShane Bell Foundry, moved his company from the city of Baltimore to the western side of Bear Creek in 1893 and an area he named Dundalk. The Baltimore and Sparrow's Point Railroad established a rail line by 1895 to facilitate the transportation of employees and goods to and from both the Sparrow's Point Shipyard and the McShane Bell Foundry. That same year, construction was occurring on a drawbridge across Bear Creek to improve transportation along the North Point peninsula.[2]

In 1896, the U.S. Army established Fort Howard across Bear Creek on the North Point. This military post contained six batteries and was the chief defense and harbor headquarters for Baltimore until 1940.[3] The primary route used to reach Fort Howard was MD 20 and Wise Avenue. The North Point peninsula was further developed with the construction of the Bay Shore Amusement Park by the United Railway and Electric Company in 1906.[4]

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[1] Arnett, et al. *Maryland: A New Guide to the Old Line State.* 481.
"Bethlehem Steel Corporation, Sparrows Point MD Record of Pre-WWII Shipbuilding."
http://www.coltoncompany.com/shipbldg/ussbldrs/prewwii/shipyards/bethsparrowspoint.htm
"From the Meadows to the Point." http://www.louisdiggs.com/meadows/home.html

[2] Terri Narrell Mause. "Dundalk's Timeline" Dundalk Eagle. October 20, 2004.

[3] "Fort Howard." American Forts Network. http://www.geocities.com/baltforts/Fort_Howard/

[4] North Point State Park History. http://www.homestead.com/northpointstatepark/history.html

In 1916, Bethlehem Steel purchased the Maryland Steel Company's Sparrow's Point shipyard and created the Dundalk Company. The Dundalk Company purchased 1,000 acres of land and created the first planned community on the North Point peninsula. As part of the construction, the company built additional housing, community buildings, and a company store adjacent to the shipyard for its workers. At this time, the community of Dundalk was formally established and contained 62 homes, two stores, a post office and a telephone exchange. Additional housing was also constructed in Dundalk, close enough for workers to commute by train, to accommodate the increasing workforce of the Sparrow's Point shipyard. By the start of World War II, the shipyard had become the largest employer on the North Point peninsula and had a work force too large to be housed in one location on Sparrow's Point.[5]

The area's population continued to grow during World War I and World War II as the Sparrow's Point shipyard manufactured ships for the war effort. During both wars, the federal government took over the construction of worker housing from Bethlehem Steel. As a result, construction occurred at a rapid pace, with additional residential neighborhoods built on both sides of Bear Creek. After World War II, the Sparrow's Point shipyard continued to grow becoming the largest steel mill in the world and reaching a peak employment of 35,000 workers in 1959. The community of Sparrow's Point accommodated 5,400 people at its peak in 1955, necessitating the construction of additional company-sponsored housing projects on the west side of Bear Creek.[6]

With the continued growth of the shipyard, the construction of additional residential communities for workers further from Sparrow's Point, and the increased availability of the automobile to the middle class, additional roads and bridges were constructed along the peninsula. In 1921, a toll bridge was built connecting Dundalk to Sparrow's Point, bypassing Wise Avenue and MD 151, though these routes were still heavily traveled. This bascule bridge was constructed by the county at the end of Dundalk Avenue and remained in operation until 1983 when it was closed due to structural damage. The Dundalk Avenue Bridge was demolished in 1989.[7] In 1948, the Wise Avenue drawbridge was replaced by a bascule bridge which remains in use (MHT BA-2681, Bridge B0079).

After World War II, the area's roads were improved and widened due in large part to the importance of the Sparrow's Point shipyard to the regional economy. As a part of the overall efforts to improve roadways in the area, the Peninsula Expressway was conceived of by the Baltimore County government as a way of creating an express route from Sparrow's Point to Dundalk, Baltimore, and I-695. Construction of the expressway led to the construction of a third bascule bridge across Bear Creek, located to the south of the Wise Avenue Bridge and to the north of the Dundalk Avenue Bridge. A swing span railroad bridge for the Patapsco Neck Branch Rail Road is located within a ¼ mile to the north of the MD 157 Bridge. Originally designed as a toll bridge with a tollhouse located at its northwestern end, the tolls were discontinued at an unknown date. The bridge was transferred to the State Highway Administration in the 1990s when it took over maintenance of the Peninsula Expressway. It is unclear why a bascule bridge was selected for this location as there was no industry or boatyards located to the north of the new bridge site and Bear Creek has no northern outlet. It is assumed that the U.S. Army Corps of Engineers had declared Bear Creek to be a navigable waterway beyond this point, requiring that the waterway be accessible to marine traffic and necessitating the construction of a movable bridge on Bear Creek. High level bridges are not normally built in urbanized areas, as the building of long approach spans necessitates demolition of exiting buildings in their vicinity.

The MD 157 Bridge over Bear Creek, or Cort Memorial Bridge, was originally a twenty-span movable double leaf bascule bridge which was changed to a sixteen span bridge during the 1999 alterations. Its overall length is 1,348 feet and it is 50 feet wide,

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[5] Arnett, et al. *Maryland: A New Guide to the Old Line State*. 480-482.
Tawanda W. Johnson. "'It's like a piece of heaven here' Dundalk residents enjoy the good life in the shadow of Baltimore" Baltimore Sun On-line Edition. June 15, 2003.
[6] Terri Narrell Mause. "Bethlehem Steel has tight ties to Dundalk" Dundalk Eagle. October 20, 2004.
[7] Terri Narrell Mause. "Dundalk's Timeline" Dundalk Eagle. October 20, 2004.

accommodating four lanes of traffic and two pedestrian walkways. In 1999, the superstructure and substructure of the approach spans were replaced, reducing the total number of spans, and the piers for the bascule span were repaired. At that time the electrical equipment was replaced and the bascule machinery repaired. The bridge has a concrete deck and replacement concrete parapet.[8]

The rehabilitation of the bridge in 1999 removed almost all of its original structure and materials, including piers, light fixture, railings, and signage. The only parts of the bridge left untouched are the piers which house the bascule machinery and the operator's house. These two piers are simple concrete structures with no architectural detailing. The two-story operator's house, integrated into the westernmost of the two piers, has wrap-around double-hung sash windows and a flat roof.

Bascule bridges, of which the Wise Avenue over Bear Creek Bridge is a late example, became popular in the late 19th century when advances in engineering technology made it feasible to build movable bridges across navigable waterways, replacing ferries and shortening land transportation routes. Movable spans are required for bridges crossing on navigable waterways in order to permit passage of vessels that would otherwise be blocked by insufficient vertical clearance of structures that are either fixed or in the closed position.[9] Movable span bridges are common in urban areas where high-density development make the construction of a high level bridge with elaborate approach ramps unfeasible.

The first movable bridges were swing spans, which were quickly replaced by bascule bridges. Bascule bridges had many advantages over swing spans: They typically had a rapid operation, the center of the water channel was kept clear of piers, and a second bridge could be constructed adjacent to the first where swing spans required the nearby river banks to be kept clear to allow for their rotation. Bascule bridges rotate in a vertical plane around a horizontal axis, like a seesaw. A weight changes the bridge's center of gravity, raising and lowering the bridge deck. The technology allows for the movement of long spans and could leave a waterway almost clear of obstructions.

Bascule bridges are constructed with either a single or double leaf. Single leaf bascules are used for short spans, while double leaf bascules can accommodate a much longer span. Double leaf bascule bridges tend to raise and lower faster than a single leaf version and have smaller counterweights and parts as they evenly split the span into two smaller and lighter segments.

The first bascule bridge was completed in Chicago in 1893 and used a patented rolling lift designed by William Scherzer, in which a large overhead counterweight changes the bridge's center of gravity, rotating the center point along a grooved horizontal track. The early decades of the 20th century were dominated by designs patented by Scherzer and others, including Brown, Rall, Schinke, and Strauss, who fabricated their designs in numerous shops, many of which are no longer in existence. Between 1873 and 1924, 78 patents were issued for movable span designs and mechanisms.[10]

The simple trunnion, or Chicago Type Bascule, was designed by the City of Chicago; the first bridge of this type was completed in 1902. In this type of bascule bridge, the bridge rotates around a fixed point, known as the trunnion, located at the leaf's center of gravity. The trunnion supports the entire weight of the bridge when it is moving or open. The counterweight is attached to the end of the leaf and is normally located within a bridge support that then lowers into a pit. The trunnion-type bascule became the most

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[8] *Bear Creek Bridge II Construction Drawings*, (1958).
URS Corporation. *Bridge Inspection Report, Bridge No. 0336500 MD Route 157 Over Bear Creek, Peninsula Expressway Bridge, Baltimore County*. (2002).

[9] *Delaware's Historic Bridges*, 87-88.
Rita Suffness . "Movable Span Bridges of Maryland," (1992), 3.

[10] *Delaware's Historic Bridges*, 90-92.
"Movable Span Bridges of Maryland," (1992), 5-6.

common type of bascule bridge constructed, due in part to the fact that it fixed many of the problems found in a rolling lift design and that the original design by the City of Chicago was never patented, though some bridge designers patented their own versions of this bridge type. By the 1940s, almost all of the various bascule bridge designs were in the public domain and new versions of this bridge type were not patented.[11]

According to Spero in her report on Maryland bridges, 20 working movable bridges were extant in the state in 1993. The majority of these bridges were constructed between 1900 and 1940 in Tidewater locations around the Chesapeake Bay.[12] Construction of bascule bridges declined after World War II and most examples of this type were replaced with large, high level bridges.

The MD 157 Bridge over Bear Creek was designed specifically for this site by the Wilson T. Ballard Company for the Baltimore County Revenue Authority in 1958. The Wilson T. Ballard Company was established in 1948 by Wilson T. Ballard the former chief engineer for the Maryland State Roads Commission. The company, which is still in existence, is known for the comprehensive planning and design of highways and bridges. The MD 157 Bridge over Bear Creek is one of three examples of this bridge type constructed in Maryland from 1948 to 1960 and one of two examples of its type in Baltimore County.[13]

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[11] Ibid.
[12] Spero, P.A.C., & Company, *Historic Highway Bridges in Maryland:1631-1960: Historic Context* Report, 1995, 101-102.
[13] MDSHA Table of 1948-1960 Bridge Statistics. Unpublished.

9. Major Bibliographical References

Inventory No. BA-2713

See Continuation Sheet

10. Geographical Data

Acreage of surveyed property _____
Acreage of historical setting _____
Quadrangle name Sparrows Point, MD Quadrangle scale: 1:24,000

Verbal boundary description and justification
MD 157 Bridge carries MD 157 over Bear Creek. It connects the community of Dundalk on the western bank to Sparrow's Point on the eastern bank of the waterway. The bridge has been associated with this site since its construction.

11. Form Prepared by

name/title	Amy V. Barnes / Mary E. Crowe and Stan Popovich		
organization	URS Corporation / Hardlines Design Company	date	October 2004
street & number	200 Orchard Ridge Drive / Hardlines Design Company	telephone	301-258-9780 / 614-784-8733
city or town	Gaithersburg / Columbus	state	MD / OH

The Maryland Inventory of Historic Properties was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
DHCD/DHCP
100 Community Place
Crownsville, MD 21032-2023
410-514-7600

Maryland Historical Trust
Maryland Inventory of
Historic Properties Form

Inventory No. BA-2713

Name Bridge No. 0336500, MD 157 Bridge over Bear Creek
Continuation Sheet

Number 9 Page 1

Arnett, Earl, Robert J. Brugger, Edward C. Papenfuse. *Maryland: A New Guide to the Old Line State*, 2nd ed. Johns Hopkins University Press: Baltimore, Md., 1999.

Colton, Tim. "Bethlehem Steel Corporation, Sparrows Point MD Record of Pre-WWII Shipbuilding." Available on the Internet at <http://www.coltoncompany.com/shipbldg/ussbldrs/prewwii/shipyards/bethsparrowspoint.htm>. Last Accessed October 27, 2004.

Diggs, Louis. "From the Meadows to the Point." Available on the Internet at <http://www.louisdiggs.com/meadows/home.html>. Last Accessed October 27, 2004.

Johnson, Tawanda W. "'It's like a piece of heaven here' Dundalk residents enjoy the good life in the shadow of Baltimore" Baltimore Sun On-line Edition. June 15, 2003.

Lichtenstein Consulting Engineers. *Delaware's Historic Bridges*, 2nd ed. Lichtenstein Consulting Engineers: Paramus, NJ, 2000.

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Maryland State Highway Department. Table of 1948-1960 Bridge Statistics. Unpublished.

_____. Table of Bridges by Type and Year. Unpublished.

Mause, Terri Narrell. "Bethlehem Steel has tight ties to Dundalk" Dundalk Eagle. October 20, 2004.

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Spero, P.A.C., & Company, *Historic Highway Bridges in Maryland:1631-1960: Historic Context* Report, 1995, 101-102.

Suffness, Rita. "Movable Span Bridges of Maryland," 1992 .

URS Corporation. *Bridge Inspection Report, Bridge No. 0336500 MD Route 157 Over Bear Creek, Peninsula Expressway Bridge, Baltimore County*. URS Corporation: Hunt Valley, Md. 2002.

Wilson T. Ballard Company. *Bear Creek Bridge II Construction Drawings*. 1958. On File at the Maryland State Highway Department.

Sources Consulted:
Maryland SHA Cultural Resource Library and Bridge Engineering Department, Baltimore - Reports published by or for the State Roads Commission, bridge files
Maryland Highway Administration, District 4 Office, 2323 West Joppa Road, Brooklandville MD, 410-321-2800
Maryland Historical Trust Library, Crownsville - Inventory of Historic Places, National Register Nominations, Determinations of Eligibility, Cultural Resource Reports
Maryland State Archives, Annapolis - photographs from the Sarikas Collection and materials published by the State Roads Commission

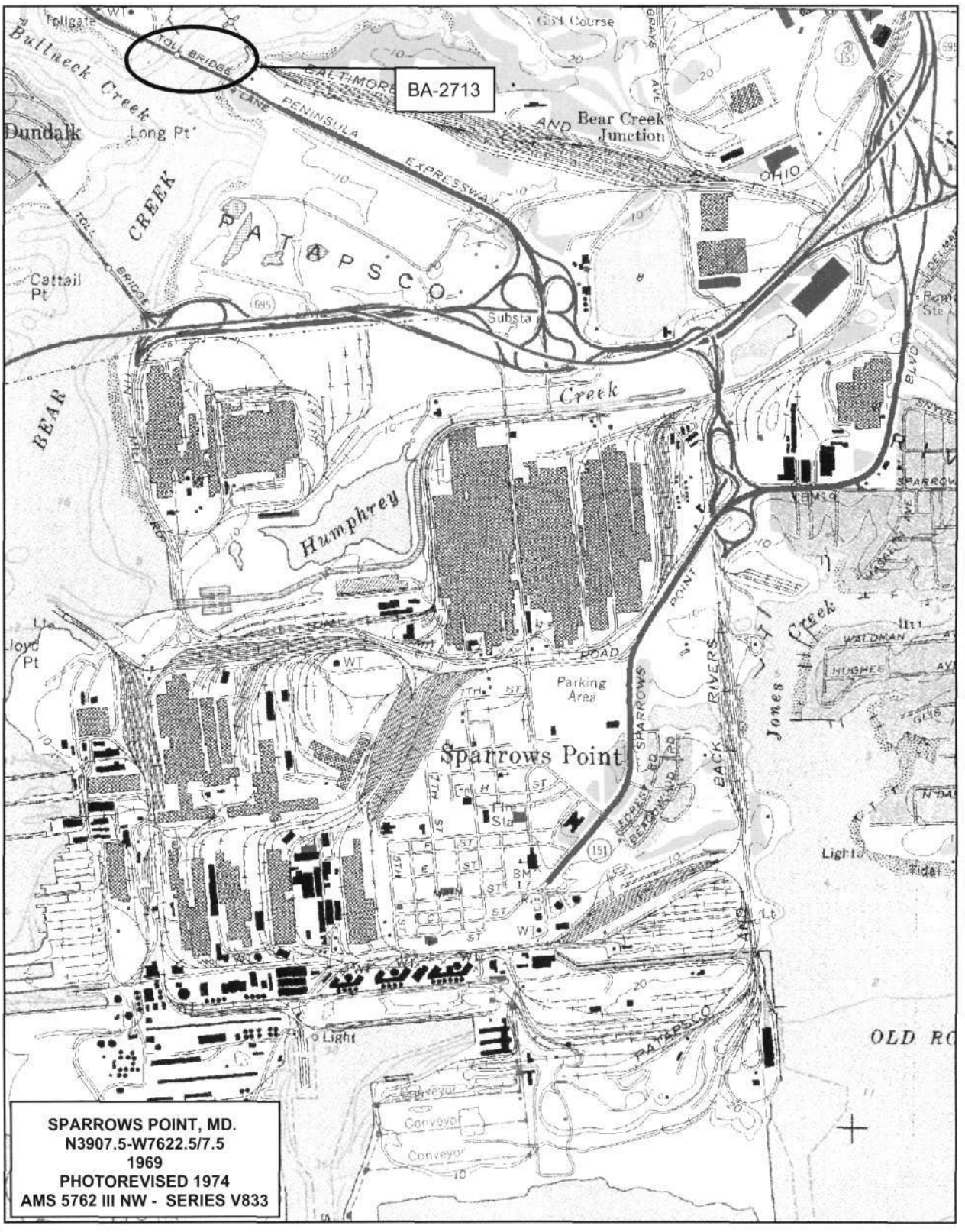
Maryland Historical Trust
Maryland Inventory of
Historic Properties Form

Inventory No. BA-2713

Name Bridge No. 0336500, MD 157 Bridge over Bear Creek
Continuation Sheet

Number 9 Page 2

Enoch Pratt Library (Maryland Room), Baltimore - vertical files dealing with Maryland bridges
Library of Congress ,Washington, DC - General information on bridges and additional Maryland bridge material
New Jersey State Library, Trenton - Engineering News-Record on microfilm
New York Public Library, (Science, Business, and Industry Library), New York - Additional SHA annual reports



1:24,000

0 0.125 0.25 0.5 0.75 1 Miles

0 0.25 0.5 1 1.5 2 Kilometers

MIHP # BA-2713
Bridge 0336500
MD 157 (Peninsula Expressway) over Bear Creek
Baltimore Vicinity
Baltimore County
Sparrows Point, MD. Quadrangle

MIHP # AA-2713
Bridge # 5336500, MD 157 over Bear Creek
Baltimore County, MD
Photographer: Stan Popovich, Nordhaus Design Company
Date: 6/03
Location of Negatives: MD SHPO
looking east down bridge deck
1/7

MHP # BA-2713

Bridge # 0336500, MD 157 over Bear Creek

Baltimore County MD

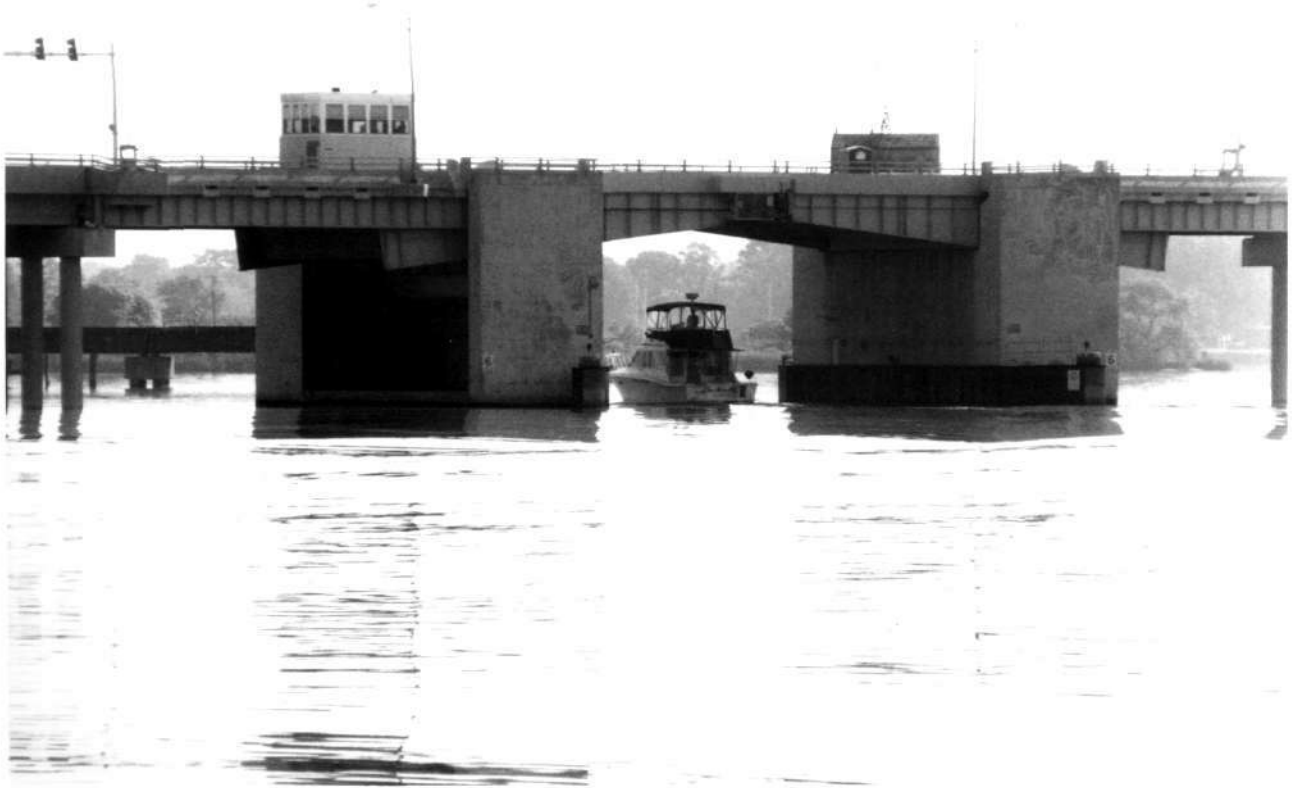
Photographer: Stan Popovich, Hardlines Design Company

Date: 5/5/93

Location of Negatives: MD SHPO

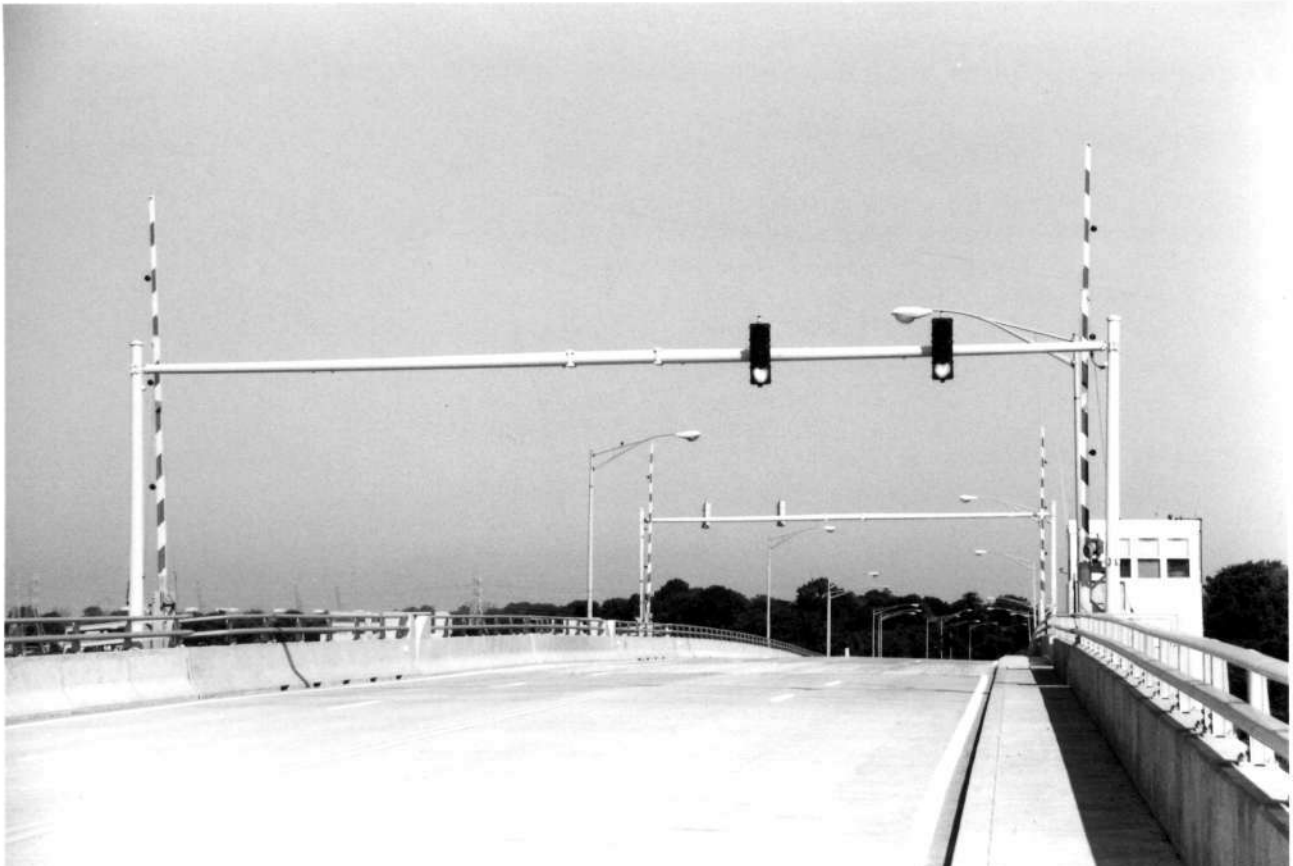
looking north at entire bridge, south elevation

2/7



MIHP # BA-2715
Bridge # 3356500, MD 150 over Bear Creek
Baltimore County, MD
Photographer: Stan Topovich, Hardlines Design Company
Date: 6/10/03
Location of Negatives: MD SHPO
looking north at south elevation of bascule span
3 of 7

MIHP # BA-2713
Bridge # 0336500, MD 157 over Bear Creek
Baltimore County, MD
Photographer: Stan Popovich, Hardlines Design Company
Date: 6/6/03
Location of Negatives: MD SHPO
looking southwest down bridge deck
4/7



MHP # BA-2713
Bridge # 0336500, MD 157 over Bear Creek
Baltimore County, MD
Photographer: Stan Popovich, Hardlines Design Company
Date: 6/10/03
Location of Negatives: MD SHPO
looking west down bridge deck
5 of 7

MHP # BA-2713
Bridge # 0336500, MD 157 over Bear Creek
Baltimore County, MD
Photographer: Stan Papouch, Hardlines Design Company
Date: 6/10/03
Location of negatives: MD SHPO
looking Northwest at control tower and bascule span deck
6/7


1933
0336500

MIHP # BA-2713
Bridge # 0336500, MD 157 over Bear Creek
Baltimore County, MD
Photographer: Stan Popovich, Hardlines Design Company
Date: 6/10/03
Location of negatives: MD SHPO
looking northwest at date at northeast corner of bridge
7 of 7

MHT Number: BA-2713

Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

Name and SHA No. Bridge over Bear Creek ~~(No. 147)~~ Bridge #0336500
Location:
Street/Road name and Number: MD 157 (Peninsula Expressway) over Bear Creek
City/Town: Dundalk X vicinity
County: Baltimore
Ownership: X State ___County ____Municipal ____Other
This bridge projects over: Road Railway X Water Land

Is the bridge located within a designated district: yes X no
NR listed district NR determined eligible district
locally designated other
Name of District

Bridge Type:

Timber Bridge
Beam Bridge
Truss-Covered Trestle Timber-and-Concrete

Stone Arch

Metal Truss Bridge

X Movable Bridge
Swing Bascule Single Leaf X Bascule Multiple Leaf
Vertical Lift Retractile Pontoon

Metal Girder
Rolled Girder Rolled Girder Concrete Encased
Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

Concrete
Concrete Arch Concrete Slab Concrete Beam
Rigid Frame Other
If other: Type Name

Description:

Describe Setting: 0336500

Bridge No. ~~147~~ carries MD 157, the Peninsula Expressway, over Bear Creek in a roughly northwest-southeast direction connecting Dundalk to Sparrows Point. The west end of the bridge rests on a spit of land between Bullneck Creek and Lynch Cove. There is a movable (swing) railroad bridge and railroads tracks to the north of the bridge and a marina north of the tracks. To the west of the bridge is a county brick maintenance building.

Describe Superstructure and Substructure:

The MD 157 bridge over Bear Creek is a four lane, double leaf trunnion bascule. A trunnion bascule span swings upward around a central pivot at the center of rotation. Fenders built in the water at the corner of each movable span protect the spans from possible impact from boats passing through the channel. The movable span is 90 feet between centerline of trunnions, 72.5 feet between live load shoes, and provides a clearance of 63'6" between fenders. The structure, built in 1960 of concrete and steel, carries a clear roadway width of 42' and is posted for 19 tons. A very narrow walkway on each side of the roadway allows the bridge tender to access the controls within the tender's house and also allows foot traffic to cross the bridge. The bridge tender's house is located on the north side of the bridge to the west of the movable span . It is rectangular in shape, the lower two-thirds are concrete, the upper third is glass. On the west facade, a metal door with a glass panel permits access to the house from the bridge. Some of the windows appear to be original two over two steel sash. The roof is flat.

Baltimore County's 1986 and 1988 bridge inspection programs recommend deck replacement. The bridge superstructure is scheduled to be replaced.

Discuss major alterations:

There have been no structural repairs or alterations. Minor repairs and maintenance of the mechanical and electrical systems have been carried out as part of routine maintenance.

History:

When Built: *1960*
Why Built: *As part of Peninsula Expressway project, to provide access to Sparrows Point without having to go through Dundalk.*
Who Built: *Baltimore County*
Who Designed: *Wilson T. Ballard Co.*
Why Altered: *N/A*

Was this bridge built as part of an organized bridge-building campaign?

No, this bridge was not built as part of an organized bridge-building campaign.

Surveyor Analysis:

This bridge may have NR significance for association with:

Criterion A: Events Criterion B: Person

__X__ Criterion C: Engineering/Architectural Character

Was the bridge constructed in response to significant events in Maryland or local history? 0336500

Bridge No. ~~147~~ and the Peninsula Expressway were likely constructed as a result of industrial expansion in Sparrows Point. Bethlehem Steel consistently employed approximately 29,000 workers between 1950 and 1970, most of whom would need to travel to Sparrows Point from elsewhere. Previously, commuter trains and streetcar service provided access to the Steel complex. A movable toll bridge was constructed c.1932 from Dundalk to Sparrows Point at a point south of the current bridge. This earlier bridge was between Peach Orchard Creek and Bullneck Creek. SHA maps show the earlier bridge at that location until at least 1986, when it appears to have been closed. By 1994 the bridge is no longer visible on any maps, presumably removed sometime between 1987 and 1994.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

It does not appear that the construction of this bridge had any significant impact on the growth and/or development of the area. Rather one would assume that this bridge was built in response to growth and development in the highly industrial area of Sparrows Point.

Is the bridge located in an area that may be eligible for historic designation and would the bridge add to or detract from the historic and visual character of the possible district?

The bridge is not located in an area that would eligible for historic designation.

Is the bridge a significant example of its type?

The MD 157 bridge over Bear Creek is a significant example of a trunnion bascule bridge and one of few still extant in Maryland. However, because it is less than 50 years old, it is not eligible for listing in the National Register.

MHT Number: BA-2713

Does the bridge retain integrity of the important elements described in the Context Addendum?

This bridge retains integrity of location, setting, design, materials, workmanship, feeling and association. It has not been signicicantly altered. It is operational and still in use. It continues to connect the Dundalk area with Sparrows Point as it did when it was built.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer and why?

This bridge was constructed too recently to determine whether or not it is a significant example of the work of Wilson T. Ballard Co.

Should this bridge be given further study before significant analysis is made and why?

No further study is required to determine that the bridge lacks historical significance.

Provide black and white prints and negatives and color slides of bridge, details, and setting labeled according to NR Bulletin 16A and Maryland Supplement to Bulletin 16A.

Provide a USGS map illustrating the location of the bridge.

Surveyor:
Name: Heather M. Confer **Date:** October 8, 1998
Organization: SHA **Telephone:** 410-545-2899
Address: 707 N. Calvert St. Baltimore MD 21202

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ____ **Eligibility not recommended** X

Criteria: __A __B X C __D

Considerations: __A __B __C __D __E __F __G __None

Comments: ALTHOUGH IT ~~WAS~~ IS AN EXAMPLE OF A PASCHAL LIFT, IT WAS CONSTRUCTED IN 1960 AND THUS IS NOT ELIGIBLE.

11/20/98

Reviewer, Office of Preservation Services Date 12/3/98

Sparrows Point

BA-2713

Baltimore County
Bridge Number ~~147~~ 0336500
MD 157 (Peninsula Expressway)
Over Bear Creek
Sparrows Point Quad

ANNE ARUNDEL
BALTIMORE

UNITED STATES
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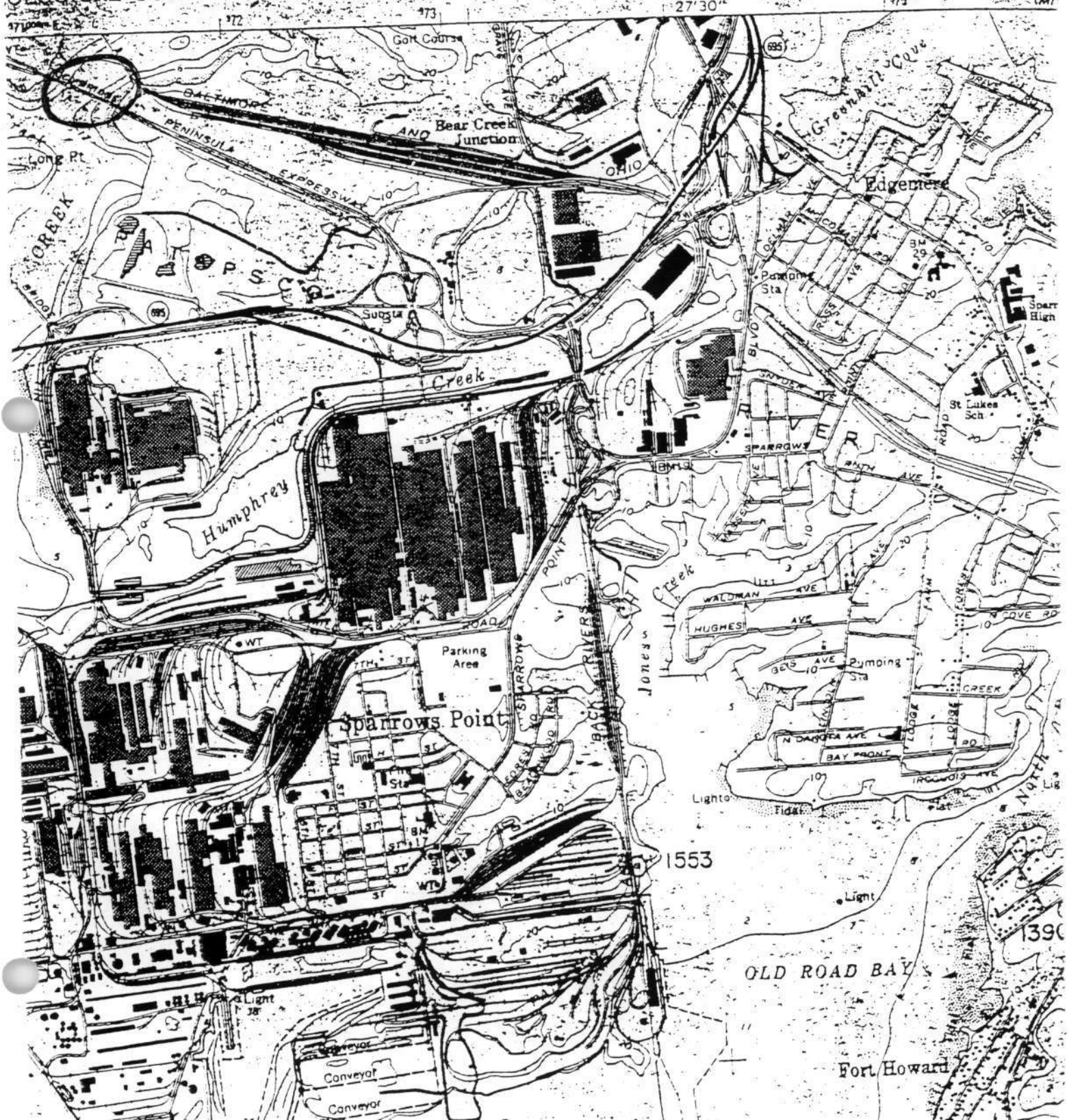
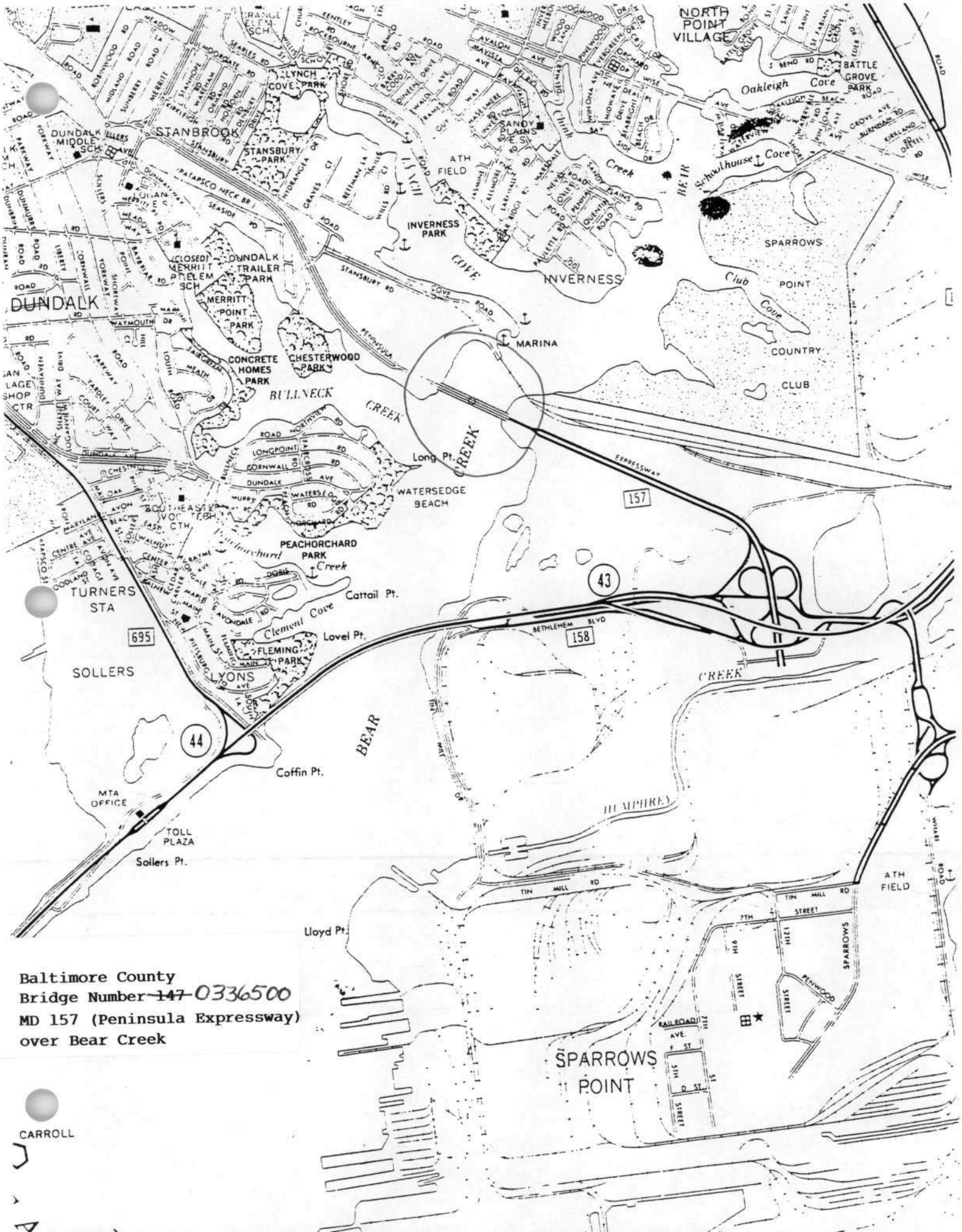


BA-2713



Baltimore County
Bridge Number ~~147~~ 0336500
MD 157 (Peninsula Expressway)
over Bear Creek

1) BA-2713
2) Bridge #0336500 carrying MD157 over Bear Creek
3) Baltimore County, MD
4) HEATHER CONFER
5) Oct 7, 1998
6) MDSHPO
7) looking north toward bridge from Waterside Park, Dundalk
8) #1 of 10

1) BA-2713

2) Bridge #0336500 carrying MD157 over Bear Creek

3) Baltimore County, MD

4) Heather Confer

5) Oct 7, 1998

6) MDSHPO

7) looking northeast toward bridge from Watersedge Park, Dundalk

8) #2 of 10

1) MBA-2713
2) Bridge #0336500 carrying MD 157 over Bear Creek
3) Baltimore County, MD
4) Heather Confer
5) Oct 7, 1998
6) MDSHPO
7) looking North toward bridge from Watersedge Park, Dundalk
Note RR swing bridge in background
8) #3 of 10

1) MBA-2713

2) Bridge #0336500 carrying MD157 over Bear Creek

3) Baltimore County, MD

4) Heather Confer

5) Oct 7, 1998

6) MD SHPO

7) looking northwest from creek bank at south side of bridge
east end of bridge

8) #4 of 10

1) MA-2713

2) Bridge # 0336500 carrying MD157 over Bear Creek

3) Baltimore County, MD

4) Heather Confer

5) Oct 7, 1998

6) MD SHPO

7) looking northwest from creek bank at southside of bridge, East end of bridge

8) #5 of 10

1) MBA-2713

2) Bridge #0336500 carrying MD157 over Bear Creek

3) Baltimore County MD

4) Heather Corner

5) Oct 7, 1998

6) MDSHPO

7) looking northwest-from creek bank at Southside of bridge, east end of bridge

8) #6 of 10

1) BA-2713

2) Bridge #0336500 Carrying MD 157 over Bear Creek

3) Baltimore County, MD

4) Heather Confer

5) Oct 7, 1998

6) MD SHPO

7) looking west across bridge front East end of bridge

8) #7 of 10

1) BA-2713
2) Bridge #0336500 carrying MD157 over Bear Creek
3) Baltimore County, MD
4) Heather Confer
5) Oct 7, 1998
6) MDSHPO
7) looking South at bridge deck, parapet, railing,
I695 Bridge in background
8) #8 of 10

1) BA-2713
2) Bridge #0336500 carrying MD 157 over Bear Creek
3) Baltimore County, MD
4) Heather Confer
5) Oct 7, 1998
6) MDSHPO
7) looking Northeast at operator's house south & west façades
8) #9 of 10

1) BA-2713
2) Bridge #0336500 carrying MD 157 over Bear Creek
3) Baltimore County, MD
4) Heather Confer
5) Oct 7, 1998
6) MDSHPO
7) looking east from west end of bridge
8) # 10 of 10